

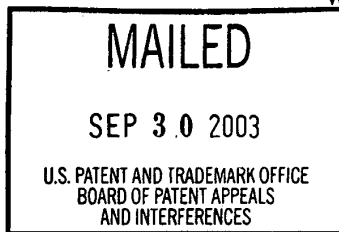
The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WEIZHONG ZHAO, THOMAS W. SMITH, DAVID H. PAN,
WILLIAM M. PREST JR., and SAMUEL KAPLAN



Appeal No. 2003-0667
Application No. 09/514,699

ON BRIEF

Before PAK, TIMM, and POTEATE, *Administrative Patent Judges*.
TIMM, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal involves claims 1, 3-5, 7, 9, and 10. Claims 11-20, the only other claims pending in the application, have been withdrawn as not directed to an elected invention (Answer at p. 2). We have jurisdiction over the appeal pursuant to 35 U.S.C. § 134.

THE CLAIMED SUBJECT MATTER

Claim 1 is illustrative of the subject matter on appeal:

1. A process comprising:

dispersing a first liquid developer concentrate comprising a resin, a colorant, and a liquid developer reconstitution compound, in a carrier liquid, into additional carrier liquid to form a second liquid developer;

depositing the second liquid developer onto a liquid receiver member to form a developer cake;

developing an image with the developer cake;

reclaiming undeveloped developer cake from the cake bearing liquid receiver member;
and

redispersing the reclaimed undeveloped developer cake in the second developer liquid.

THE EVIDENCE

As evidence of unpatentability, the Examiner relies upon the following prior art references:

Lane et al. (Lane)	5,254,427	Oct. 19, 1993
Wellings	5,345,296	Sep. 6, 1994
Liu et al. (Liu)	5,826,147	Oct. 20, 1998

Exxon Product Information Bulletin for ISOPAR® G Solvent, Jul. 1, 1994 (Exxon Bulletin)

Exxon Product Information Bulletin for ISOPAR® H Solvent, Nov. 23, 1998 (Exxon Bulletin)

THE REJECTIONS

The claims stand rejected on the following grounds:

1. Claims 1, 4, 5, 7, and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wellings in combination with Lane as evidenced by the Exxon Bulletins.
2. Claims 1, 3-5, 7, and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Liu in combination with Wellings and Lane as evidenced by the Exxon Bulletins.
3. Claim 10 stands rejected under 35 U.S.C. § 112, ¶ 2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Appellants regard as the invention.

Appellants state that, with respect to the rejections under 35 U.S.C. § 103, the claims do not stand or fall together (Amended Brief¹ at p. 6). To the extent that the claims are argued separately in accordance with 37 CFR § 1.192(c)(8)(2001), we will consider them separately.

We affirm, however, with respect to the rejection of claim 10, we designate our affirmance as involving a new ground of rejection. Our reasons follow.

¹The Amended Brief replaces the earlier Brief filed May 7, 2002 which the Examiner found to be non-compliant with 37 CFR § 1.192.

OPINION

Obviousness

Our initial focus will be on claim 1, the only independent claim. That claim is rejected upon two bases: 1) as obvious over Wellings in combination with Lane as evidenced by the Exxon Bulletins and 2) as obvious over Liu in combination with Wellings and Lane as evidenced by the Exxon Bulletins. We affirm both rejections and in so doing adopt the findings of fact and conclusions of law presented in the Answer. We add the following for emphasis and completeness.

Wellings in combination with Lane as Evidenced by the Exxon Bulletins

The Examiner finds that Wellings discloses the process of claim 1 with the exception that Wellings does not disclose including a liquid developer reconstitution compound in the liquid developer concentrate (Answer at p. 7). The Examiner notes that Lane describes a liquid developer concentrate containing a surfactant and also finds that the surfactant meets the requirements of the claimed liquid developer reconstitution compound (Answer at p. 9). The Examiner concludes that it would have been obvious to one of ordinary skill in the art to use the liquid developer concentrate of Lane, which includes the reconstitution compound, in the process of Wellings (Answer at p. 10).

Appellants argue that “Wellings does not teach the liquid developer reconstitution compound recited for example, in claim one the Examiner has not established that Wellings does not teach the use of a second liquid developer.” (Amended Brief at p. 8).

With respect to the first portion of the argument, i.e., that Wellings does not teach the liquid developer reconstitution compound of claim 1, we note that the Examiner acknowledges this fact and cites Lane for a teaching of a liquid developer concentrate containing a reconstitution compound. Appellants do not dispute the Examiner's finding that the surfactant of Lane is a reconstitution compound as required by claim 1.² Wellings' silence does not equate to a reversible error in the rejection.

The second portion of the argument is unclear. Possibly, Appellants intended to argue that the Examiner has not established that Wellings teaches the use of a second liquid developer as required by claim 1. This argument is not persuasive because the "working developer solution" of Wellings meets all the requirements of the claimed "second liquid developer".

Appellants further argue that Wellings does not teach: 1) dispersion of first and second liquid developers; 2) formation of a second liquid developer by dispersion of a first liquid developer concentrate in a carrier liquid into additional carrier liquid; and 3) redispersing the reclaimed undeveloped developer cake in a second developer liquid (Amended Brief at p. 8). These arguments are not persuasive because claim 1 recites five steps and Wellings describes a process corresponding to those five steps. Specifically, Wellings describes:

1. dispersing a first liquid developer concentrate (concentrated developer solution contained in replenisher 39) into an additional carrier liquid (in dispersion system

²Appellants' specification indicates that the claimed "liquid developer reconstitution compound" encompasses polymeric surfactants such as those disclosed by Lane (compare specification at pp. 14-16 with Lane at col. 3, l. 59 to col. 4, l. 52).

- 30) to form a second liquid developer (working developer solution)(Wellings at col. 5, ll. 29-32 and col. 6, ll. 31-39).
2. depositing the second liquid developer (working developer solution) onto a liquid receiver member (e.g., developing roller 17) to form a developer cake on the roller (Wellings at col. 4, l. 60 to col. 5, l. 2);
 3. developing an image with the developer cake (Wellings at col. 4, l. 60 to col. 5, l. 2);
 4. reclaiming undeveloped developer cake from the cake bearing liquid receiver member (e.g., roller 17) with a scraper (e.g., scraper 21)(Wellings at col. 5, ll. 2-3);³
 5. redispersing the reclaimed undeveloped developer cake in the second developer liquid (working developer solution) after the undeveloped developer cake is returned via return line 24 and pumped by pump 31 through recirculation line 29 and into dispersion system 30.

As found by the Examiner, Wellings describes a process meeting the requirements of claim 1, except that Wellings does not specify the use of a liquid developer reconstitution compound in the liquid developer concentrate.

³According to the specification reclaiming is a step of removing the cake from the liquid receiver member with, for example, a scraper, a blade, and the like articles (specification at p. 12, ll. 22-26).

Appellants also argue that the Examiner has not provided any reason or suggestion for the combination of the process of Wellings with the surfactant-containing liquid developer concentrate of Lane (Amended Brief at p. 10). This argument is not persuasive because the Examiner has specifically pointed out that Lane expressly teaches advantages for including the surfactant in liquid developer concentrate: namely, to permit easy redispersion and elimination of frequent liquid disposal (Answer at p. 9; citing Lane at col. 3, ll. 3-15). The motivation for the combination is readily apparent from Lane itself.

The Examiner has established a *prima facie* case of obviousness with respect to the subject matter of claim 1 as evidenced by the combination of Wellings and Lane. The Exxon Bulletins are cumulative with regard to claim 1 and, thus, we need not discuss them here. Appellants' arguments fail to pinpoint any reversible error on the part of the Examiner or otherwise sufficiently rebut the *prima facie* case of obviousness.

Liu in combination with Wellings and Lane as evidenced by the Exxon Bulletins

The Examiner has also rejected claim 1 over Liu in combination with Wellings and Lane as evidenced by the Exxon Bulletins.

The Examiner has established that Liu describes a process including steps of depositing, developing, and reclaiming substantially as claimed (Answer at pp. 11-12). Specifically, Liu describes depositing a liquid developer onto a liquid receiver member (imaging member 10) to form a developer cake (Liu at col. 8, ll. 20-26), developing an image with the developer cake

(Liu at col. 12, ll. 15-20), and reclaiming undeveloped developer cake from the receiver member (imaging member 10) such as by a blade cleaning apparatus 90 (Liu at col. 13, ll. 3-5).

The Examiner has acknowledged that Liu does not specifically disclose the claimed steps of dispersing and redispersing (Answer at p. 12). Those steps, however, are associated with recycling the developer, something Liu does suggest (Liu at col. 13, ll. 7-11). While Liu does not provide the details of the recycling operation, Liu suggests the use of recycling processes disclosed in the relevant patent literature (Liu at col. 13, ll. 11-14). Wellings discloses a relevant recycling process with steps of dispersing and redispersing as claimed. On this basis, the Examiner has concluded that it would have been obvious to one of ordinary skill in the art to have performed the dispersing and redispersing steps of Wellings to reclaim and recycle the liquid developer of Liu to facilitate recycling as suggested by Liu (Answer at pp. 12-13).

Appellants argue that Liu does not teach the use of a second liquid developer or redispersing of the reclaimed undeveloped developer cake in a second liquid developer (Amended Brief at p. 9). The “second liquid developer” of the claim is simply the working liquid developer used to develop the image. The Examiner does not rely upon Liu to teach the redispersing step; that step is taught by Wellings.

Appellants also argue that Liu does not teach or suggest the use of a second liquid developer that is dielectric (Amended Brief at p. 9). This issue is irrelevant with respect to the process of claim 1. Claim 1 does not limit the developer to one that is dielectric.

Appellants argue that the Examiner has not provided any reason or suggestion for the combination of Liu, Wellings and Lane (Amended Brief at p. 10). But the Examiner specifically identified reasons for the combination (Answer at pp. 14-15). Lane expressly discloses the advantages of using the reconstitution compound (surfactant) in liquid developer: better redispersion and elimination of frequent liquid disposal (Lane at col. 3, ll. 3-15).

We conclude that the Examiner established a *prima facie* case of obviousness over Liu, Wellings, and Lane with respect to the subject matter of claim 1. The Exxon Bulletins are cumulative with respect to claim 1. Appellants have not persuaded us of any reversible error by the Examiner nor have Appellants sufficiently rebutted the *prima facie* case of obviousness.

Claim 3

Claim 3 is rejected as obvious over Liu in combination with Wellings and Lane as evidenced by the Exxon Bulletins. Appellants argue that the Examiner has not pointed to any teachings in the references wherein it is shown that developer cake on a liquid receiver member is charged by a corona charger prior to developing the image in combination with the process of claim 1 (Amended Brief at p. 12). But the Examiner specifically made such a finding (Answer at p. 11). Liu specifically describes corona charging as claimed (Liu at col. 9, ll. 28-64).

Claim 4

Claim 4 is rejected over both grounds of rejection: 1) Wellings in combination with Lane as evidenced by the Exxon Bulletins and 2) Liu in combination with Wellings and Lane as

evidenced by the Exxon Bulletins. The Exxon Bulletins are applied as evidence that the working liquid developer inherently has the dielectric properties of claim 4 (Answer at pp. 9-10).

Appellants argue that the Examiner has pointed to no teachings in the references wherein the dielectric property is illustrated or would have been rendered obvious (Amended Brief at p. 15). A reference, however, need not expressly disclose nor have rendered obvious a property which is inherently present. “[I]t is elementary that the mere recitation of a newly discovered function or property, inherently possessed by things in the prior art, does not cause a claim drawn to those things to distinguish over the prior art.” *In re Best*, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977)(quoting *In re Swinehart*, 439 F.2d 210, 169 USPQ 226 (1971)). Here, the Examiner provides detailed reasoning and evidence supporting inherency. Where, as here, the Examiner has provided a reasonable basis to conclude the property is inherently present, the burden shifts to Appellants to prove that there is a patentable difference. *Best*, 562 F.2d at 1255, 195 USPQ at 432-33 (CCPA 1977). Appellants have not met their burden in rebuttal.

Claims 5, 7, and 9

With respect to claims 5, 7, and 9, Appellants simply recite the limitations of the claims and argue that the Examiner has not referred to teachings in the references with regard to these limitations. We are not persuaded by Appellants’ broad brush arguments because the Examiner has made specific findings of fact for each of the limitations. See the Answer at pages 27-30. Appellants fail to address the specific findings of the Examiner and, therefore, have failed to sufficiently rebut those findings.

As a final point, we note that Appellants base no arguments upon objective evidence of non-obviousness such as unexpected results. We conclude that the Examiner has established a *prima facie* case of obviousness with respect to the subject matter of claims 1, 3-5, 7, and 9 which has not been sufficiently rebutted by Appellants.

Claim 10

Claim 10 stands rejected under 35 U.S.C. § 112, ¶ 2. 35 U.S.C. §112, ¶ 2 contains two requirements: “first, the claim must set forth what ‘the applicant regards as his invention,’ and second, it must do so with sufficient particularity and distinctness, i.e., the claim must be sufficiently ‘definite.’” *Allen Eng’g Corp. v. Bartell Indus., Inc.*, 299 F.3d 1336, 1348, 63 USPQ2d 1769, 1775 (Fed. Cir. 2002).

Because a claim cannot be read apart from and independent of the supporting disclosure on which it is based, it must be read in light of the disclosure. *In re Cohn*, 438 F.2d 989, 993, 169 USPQ 95, 98 (CCPA 1971). But, here, there is an inconsistency in meaning between claim 10 and the disclosure. Claim 10 recites that the reclaimed undeveloped developer cake “is separated” from the second liquid developer. The specification, on the other hand, describes that the reclaimed developer cake “can be *kept* separated” from the second liquid developer (specification at p. 14, ll. 12-16). The words “is separated” connote a step of dividing whereas the words “is kept separated” connote a step of preventing contact. The absence of the word “kept” in the claim gives the claim a different meaning from that advanced by the specification and, therefore, claim 10 fails to particularly point out and distinctly claim the subject matter which the Appellants regard as their invention. A claim that fails at “particularly pointing out

and distinctly claiming” the subject matter which the Appellants are entitled to claim as their invention is appropriately rejected for that reason. *In re Zletz*, 893 F.2d 319, 322, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989).

Because our reasoning is different than that of the Examiner, we designate our affirmance with respect to the rejection of claim 10 as involving a new ground of rejection. 37 CFR § 1.196(b)(2002).

CONCLUSION

To summarize, the decision of the Examiner to reject claims 1, 3-5, 7, and 9 under 35 U.S.C. § 103(a) is affirmed. The decision of the Examiner to reject claim 10 under 35 U.S.C. § 112, ¶ 2 is also affirmed, however, we designate our affirmance with regard to claim 10 as involving a new ground of rejection.

In addition to affirming the examiner’s rejection of one or more claims, this decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b)(amended effective Dec. 1, 1997, by final rule notice, 62 Fed. Reg. 53,131, 53,197 (Oct. 10, 1997), 1203 Off. Gaz. Pat. & Trademark Office 63, 122 (Oct. 21, 1997)). 37 CFR § 1.196(b) provides, “A new ground of rejection shall not be considered final for purposes of judicial review.”

Regarding any affirmed rejection, 37 CFR § 1.197(b) provides:

(b) Appellants may file a single request for rehearing within two months from the date of the original decision

37 CFR § 1.196(b) also provides that the appellant, ***WITHIN TWO MONTHS FROM THE DATE OF THE DECISION***, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of proceedings (37 CFR § 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner.
...

(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

Should the appellants elect to prosecute further before the Primary Examiner pursuant to 37 CFR § 1.196(b)(1), in order to preserve the right to seek review under 35 U.S.C. §§ 141 or 145 with respect to the affirmed rejection, the effective date of the affirmance is deferred until conclusion of the prosecution before the examiner unless, as a mere incident to the limited prosecution, the affirmed rejection is overcome.

If the appellants elect prosecution before the examiner and this does not result in allowance of the application, abandonment or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for final action on the affirmed rejection, including any timely request for rehearing thereof.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED
37 CFR § 1.196(b)



CATHERINE TIMM
Administrative Patent Judge

) BOARD OF PATENT
) APPEALS
) AND
) INTERFERENCES



LINDA R. POTEATE
Administrative Patent Judge

)
)

CT/jrg

Administrative Patent Judge Pak, Concurring-in-part and dissenting-in-part.

I concur with the majority's conclusions involving the affirmance of the examiner's § 103 rejections. However, I do not share the majority's position that claim 10 violates the requirements set forth in the second paragraph of 35 U.S.C. § 112.

35 U.S.C. § 112, second paragraph, states:

The specification shall conclude with one or more claims particularly pointing and distinctly claiming the subject matter which the applicant regards as his [or her] invention.

This statute is interpreted as setting forth two requirements, first, a claim must be written with sufficient particularity and distinctiveness and second, a claim must recite what the appellants regard as their invention. *Solomon v. Kimberly-Clark Corp.*, 216 F.3d 1372, 1377, 55 USPQ2d 1279, 1282 (Fed. Cir. 2000). The former requires a determination as to whether the claim is definite. *Id.* The latter requires a determination as to whether the appellants claim a certain subject matter **contrary** to what they regard as their invention. *Allen Engineering Corp v. Bartell Indus., Inc.*, 299 F.3d 1336, 1349 and 63 USPQ2d 1769, 1776 (Fed. Cir. 2002).

According to the majority (the decision, page 11);

there is an inconsistency in meaning between claim 10 and the disclosure. Claim 10 recites that the reclaimed undeveloped developer cake "is separated" from the second liquid developer. The specification, on the other hand, describes that the reclaimed developer cake "can be *kept* separated" from the second liquid developer specification at p. 14, ll. 12-16). The words "is separated" connote a step of dividing whereas the words "is kept separated" connote a step of preventing contact. The absence of the word "kept" in the claim gives the claim a different meaning from that advanced by the specification and, therefore, claim 10 fails to particularly point out and distinctly claim the subject matter which the Appellants regard as their invention.

In other words, the majority believes that the phrase “is separated” in claim 10 violates both the requirements of the second paragraph of 35 U.S.C. § 112 because it is said to be inconsistent with the phrase “is kept separated” at page 14 of the specification. The majority’s belief, however, is not supported by the record. The claim language in question is provided below:

10. A process in accordance with claim 1, wherein the reclaimed undeveloped developer cake is separated from the second liquid developer until the solids content of the second liquid developer drops below from about 6 to about 10 weight percent.

This language requires separation of the reclaimed undeveloped developer cake from the second liquid developer “**until** the solids content of the second liquid developer drops below from about 6 to about 10 weight percent (emphasis ours).” In other words, the claim language as a whole indicates that the reclaimed undeveloped developer cake is “kept separated” until the condition precedent occurs, i.e., “until the solids content of the second liquid developer drops below from about 6 to about 10 weight percent.” The majority simply ignores the fact that upon “separating” the reclaimed undeveloped developer cake from the second liquid developer, the reclaimed developer cake is deemed to be “kept separated” for whatever period, even for a second, from the second liquid developer, until the reclaimed developer cake is reintroduced into the second liquid developer. The claim language as a whole supports this interpretation, especially when it is read in light the specification. *See In re Cohn*, 438 F.2d 989, 993, 169 USPQ 95, 98 (CCPA 1971). The relevant parts of the specification are provided below (specification, pages 12 and 14):

[R]eclaiming undeveloped developer cake from the cake bearing liquid receiver member; and redispersing the reclaimed undeveloped developer cake in the second developer liquid...

the reclaimed developer cake can be kept separated from the second liquid developer until the solids content of the second liquid developer drops below, for example, from about 6 to about 10 weight percent...

I observe no inconsistency between the phrases in the specification and claim 10. I observe that the majority has not demonstrated that claim 10 is indefinite or contains any subject matter contrary to what the appellants regard as their invention. Accordingly, I cannot agree with the majority's position that claim 10 violates the requirements of the second paragraph of 35 U.S.C. § 112.



CHUNG K. PAK
Administrative Patent Judge

) BOARD OF PATENT
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) AND
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Appeal No. 2003-0667
Application No. 09/514,699

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